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JUST ABOUT LILACS

BROUGHT to this country by the earliest settlers, the lilac has endeared itself in the hearts of everyone. We cannot even think of a typical, old-fashioned New England garden without its lilac bush. Today gardeners have a list of twenty-eight different species and over three hundred different varieties from which to choose, truly a bewildering number for the gardener who only has a small space and wants possibly only one or two of these lovely plants. This bulletin is written chiefly for those persons who want to know more about lilacs, their propagation, care and culture, but at the same time are only interested in a few of those which are best for ornamental use. It will be necessary to discuss briefly some of the more undesirable species simply for the record, because many people think that if a plant is unknown to them it is better than the ones they already have.

It will be unnecessary to describe minutely all the species and varieties since there are other works in which this is well done. A selection will be made of what we think to be the best varieties, though it must be understood at the start that we fully realize this is a precarious thing to do. Every individual has his likes and dislikes, particularly regarding plants. Sometimes we connect personal events with certain definite plants and for this reason these naturally are more important to us. All we can do here then is to offer a good selection of varieties in the hope that it will assist others in becoming more observant in making their own selections accordingly.

HISTORY

Lilacs are not American plants. In fact, there is no member of this genus native in the United States, but they were brought to this country by the earliest settlers from the eastern hemisphere. All of the species come either from Europe or Asia, except two from the islands of Japan. Introduced into cultivation before 1560, the old-fashioned lavender colored lilac (*Syringa vulgaris*) and its white-flowered form have been grown so long in cultivation that many variations have arisen. From this early date, the hundreds of pink, red and deep purple-flowered forms have gradually arisen and been carefully selected and propagated. The Persian lilac (*S. persica*) is another plant that has been used almost as long as *S. vulgaris*. It is interesting to note that this lilac, crossed with *S. vulgaris*, gave the first hybrid lilac to horticulture, the Chinese lilac (*S. chinensis*). This originated in the Botanical Garden at Rouen, France, about 1777, and has been also called *S. rothomagensis*.

The term **"French hybrids"** has been loosely applied to the large group of varieties of the common lilac, probably because so many of them originated in France. Victor Lemoine and his associates have been more outstanding in introducing varieties of the common lilac than any others. However, a great many horticulturists have worked with the lilac, carefully selecting plants in France, Germany, Belgium and Holland. Comparatively recently some of them have originated in the United States and Canada, where lilac enthusiasts like the late John Dunbar of the Rochester Parks, have spent years in careful selection of good flowering varieties.

Besides the "French hybrids," there are other species and varieties that have merit in ornamental plantings, some of which will be mentioned later.

PROPAGATION

The Arnold Arboretum is firm in its belief that lilacs are best on their **"own roots"**. This is a controversial point; it has been for some years and probably will be for some time to come. Lilacs do not root readily from cuttings. When grafted on privet or some other such stock they "take" quickly and get an early and vigorous start, but, as investigations in the Pathological Laboratory at the Arboretum have shown, they are subject to a severe disease known as the "graft blight" of lilacs. When this occurs the plant eventually dies. This disease most frequently occurs not in the nursery but after the plants have been in the garden for several years. There is little that can be done to cure the disease once it has become established in a plant.

There are several ways of having "own root" plants. One is to

Congo, with flowers a good dark reddish purple, one of the best varieties of the common lilac.

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graft low down, and place such plants lower in the soil than ordinarily so that eventually the graft union is about 4 inches below the soil level and then the scion will throw out roots itself in from two to four years. Eventually then, the privet portion could be cut off. This sounds easy but varieties differ greatly in the rapidity with which they make their own roots, this being a constant difficulty to nurserymen.

Lilacs may also be grown from softwood cuttings and occasionally from hardwood cuttings, from layers or from suckers of "own rooted" plants. It might be said that lilac seedlings should make good understock for grafting ornamental varieties but this is not advised. Such understock always suckers badly and it is then difficult to tell which is understock and which is scion, since leaves and twigs of both would look apparently the same. On the other hand, privet foliage and twigs are easily distinguishable from those of lilac.

Various people have pointed out that for quick results, that is, for forcing in pots or some similar use, grafting on privet is best and quickest, but for the best plants over a long period of time, "own rooted" stock is necessary. Experience has shown that the privet ordinarily used in grafting (California) is much less hardy than the common lilac, and at the Ottawa Experiment Station in Canada, during severe winters, the root killed plants have always been the grafted ones rather than those on their own roots.

Consequently then, "own rooted" lilacs are always best for the home owner who wants long-lived plants, and though they may be more expensive because harder to grow, as has been pointed out, they will always give more pleasure and satisfaction in the end.

CULTURE

Lilacs are among our hardiest ornamental shrubs, when grown on their own roots, and even in the most severe winters suffer little if any winter injury. They grow in almost any good soil. Contrary to popular belief, they do not need lime, except in rare cases where the soil is very acid. Care should be taken in controlling the borer as much as possible, keeping down disease and scale pests and practicing intelligent pruning. It might be wise to use a good mulch of well rotted manure every fall. If plants get too tall or too old to bloom properly, prune out the older wood and force younger growth from the base. Be certain that "own rooted" plants are obtained at the start, since this goes a long way in making a permanent, long-lived collection.

PRUNING

Pruning may be done at any time, as far as the plants are concerned, but is is usually advisable to wait until after flowering to do it, simply because pruning before would needlessly cut out a lot of flowers that might otherwise bloom. Lilacs only need pruning to cut out dead or diseased wood, or to "renew" old plants. Young plants are best let alone. Sometimes older plants grow very tall and out of proportion, so that it is difficult for an observer, standing on the ground, to view the flowers. When this is the case, drastic pruning is in order, for they should be made to bloom so that their flowers can be observed and enjoyed by all. However, such pruning is not advisable when the plants serve as a screen or windbreak.

Lilacs "break" easily from the base, that is, even if cut to a foot from the ground, new buds easily form on the old stems. However, it may not be advisable to cut an old plant down all at once, but to prune out gradually a few of the large old branches every year, so that younger growth will be forced out from the base slowly.

Borers are troublesome sometimes on the older lilac branches, and the only way to control them is to cut out infested branches and burn them. This does not materially hurt the plants since they naturally are many stemmed, and if one or two branches are girdled by borers, their removal makes little difference.

Cutting off the flowers immediately after they have bloomed is another good practice, for this prevents seed formation and hence aids in flower production for the next year.

DISEASE AND INSECTS

One of the things that make lilacs so popular is the fact that they are so little troubled with disease and insects. True, in grafted plants, there is always the possibility of **"graft blight,"** but "own rooted" plants would eliminate this possibility. Lilacs are among the hardiest of our ornamental plants, another reason why they can be used to so great an extent. Other than the "graft blight" and the **lilac borer** already mentioned, for which there is no remedy but cutting out and burning, there may be considerable trouble with scale.

Various types of **scale insects** infest lilacs, particularly oyster shell scale. These can be readily controlled by spraying with a dormant oil spray between February 15 and early April. Mr. L. V. Schmitt of the Arboretum has effectively controlled them for years by using Sunoco oil spray, 1 part of oil to 15 parts of water, sprayed on the plants before the buds begin to swell. Other oil sprays may be just as satisfactory.

Although **mildew** is very common on the leaves of lilacs in the late summer, evident by whitish blotches or spots, it is not particularly destructive, and usually there is no reason for attempting to control it. Dusting the foliage with finely divided sulphur every two weeks has proved effective in its control where necessary.

If large old branches are cut out, the remaining stubs should be smoothed off carefully and painted, either with a lead paint or some thin asphaltum paint. Other than these already mentioned there are no serious diseases or insect pests on lilacs.

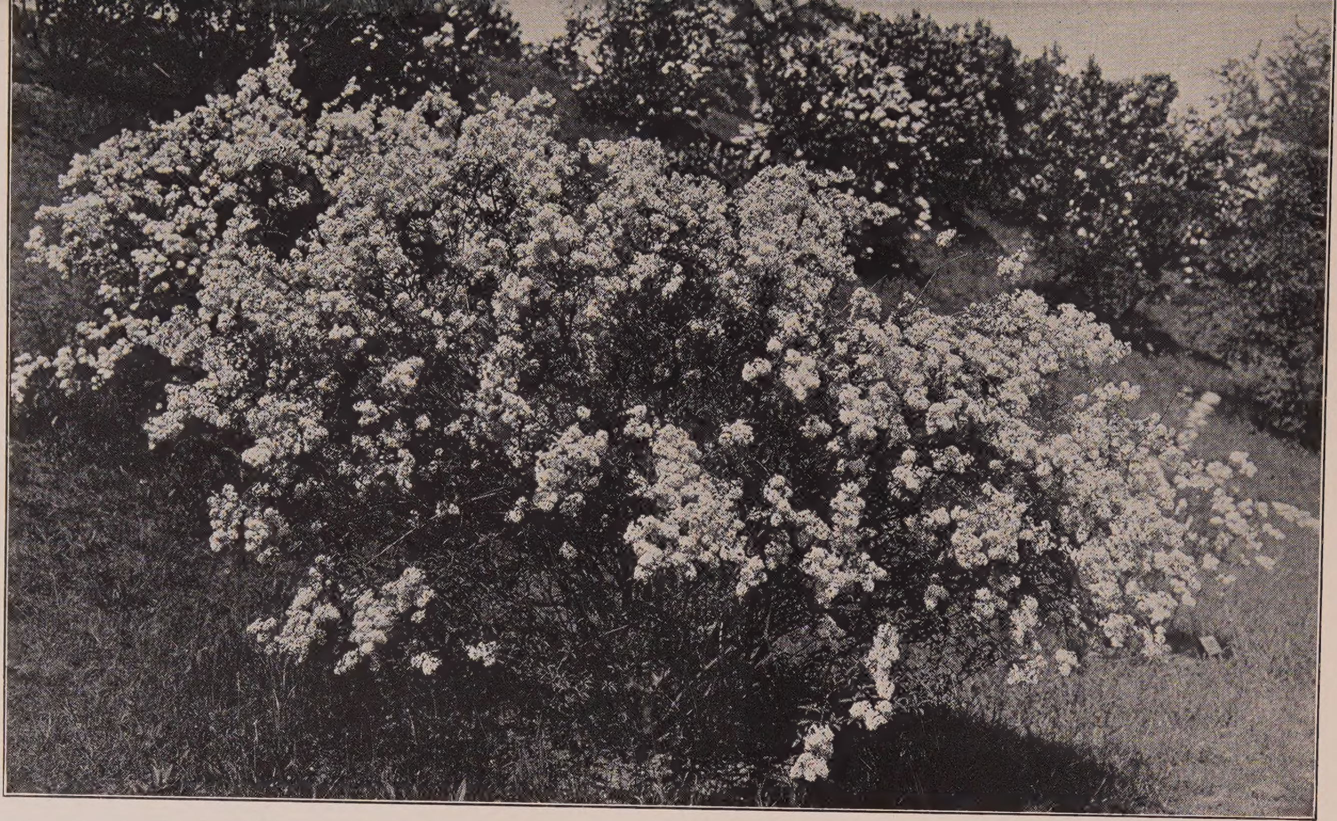
LILACS THAT DO NOT BLOOM

Sometimes certain lilac bushes, due to various causes, simply will not bloom. This is disconcerting particularly to the person who has staked everything on the flowers of one or two plants. All lilacs bloom eventually, provided, of course, the growth conditions are right. If the plants are in a shaded corner, this shade aids materially in preventing good bloom. If the soil is too poor or too rich, this also prevents blooming, the latter because all the nourishment may be going into vegetative growth. In such a case, a good root pruning might be effective.

Then, too, when a plant grows old, blossoms may become noticeably smaller and less numerous. Such conditions may be helped by renewed pruning, thus forcing out young shoots from the base of the plant. A good rich soil always promotes blooming, provided it does not create too vigorous growth.

Superphosphate, or in fact any fertilizer with a goodly proportion of phosphorous is known to promote flowering and fruiting in many plants, and has been used on lilacs and even on the flowering dogwoods to increase flower production. The way this can be applied is as follows: dig a ditch around the plant, several feet from the base, about a foot and a half deep and mix the superphosphate or other phosphatic fertilizer into the soil as it is thrown back into the ditch. The amount of fertilizer depends on the kind used and the size of the plant, but on a ten year old lilac one could use several pounds of superphosphate. This type of fertilizer is only advised in case the plants are making normal growth but are not flowering. If they are making very poor growth, then the better method would be to give them some good well rotted manure or general fertilizer mixture early in the spring.

These are only suggestions, but there are numerous instances where



The Chinese lilac (*Syringa chinensis*). The first hybrid lilac and still one of the most floriferous of all.

they have been known to assist lilacs to bloom.

TIME OF FLOWERING

With a selection of different lilac species, one can have lilacs in bloom for at least four weeks. They start, in Boston, about the second week in May with *S. Henryi* and *S. oblata* and their varieties, followed a week later by many species and the hundreds of varieties of *S. vulgaris*. After these are through there follows the white-flowered late lilac, *S. villosa*, and two of the tree lilacs, followed by the last, the Japanese tree lilac, *S. amurensis japonica.* Though these later blooming lilacs are not fragrant, and all have creamy white flowers, they are of use to us because of their late flowers, and also their very vigorous habit of growth.

SPECIES AND VARIETIES COMMON IN AMERICAN GARDENS

Syringa chinensis. This was the first hybrid lilac, a cross between *S. persica* and *S. vulgaris*, appearing in the Botanic Garden at Rouen, France in 1794. Formerly called *S. rothomagensis*, it is one of the most floriferous of all the lilacs, having immense clusters of reddish flowers intermediate in size between those of both parents. It is perfectly hardy, a rapid grower and a good bloomer, the branches often being so covered with flowers that two foot lengths often appear as a single inflorescence, so heavy that the branches bend under their weight. There are white (var. *alba*) and deep pink (var. *Saugeana*) flowered varieties.

Syringa persica. The Persian lilac can be termed our daintiest because of the very small leaves and finely divided flower clusters. There is a cutleaf form, var. *laciniata*, and a white form, var. *alba.* It has supposedly been cultivated in Persia and India from time immemorial and has been in Europe at least 300 years. The flowers are typically pale lilac.

Syringa amurensis var. **japonica.** This Japanese tree lilac is the last of all the lilacs to bloom, usually about the middle of June or later. It has large creamy white flower spikes with a disagreeable odor, and grows to a height of thirty feet or more. In the forests of northern Japan, where it is native, it is a valued timber tree. It is the last of the two "tree lilacs" to bloom, and probably the best for ornamental use. The other is *S. pekinensis.* The Japanese tree lilac was first raised in this country in the Harvard Botanic Garden prior to 1870, and was introduced to cultivation by the Arnold Arboretum.

Syringa villosa. The late lilac has creamy white flower clusters with a slightly disagreeable odor, but it blooms after the *S. vulgaris* varieties and before *S. amurensis* var. *japonica.* A dense growing tall shrub, it is valued for its late flower and good dense growth. The flower spikes are always numerous and very prominent.

Syringa vulgaris. The common lilac, and its white flowered form, are the oldest in cultivation. Now there are over 300 varieties. The famous French nurseryman, Victor Lemoine, and his associates have probably introduced more of these than anyone. In this country, the late John Dunbar of the Rochester Parks has been outstanding for his many introductions. Today, there are too many varieties of the common lilac in the trade. A collection of two or three dozen or less, should include the best of the group. An examination of the collections in Highland Park, Rochester, N. Y., and at the Arnold Arboretum, two of the best in the country, indicates that the following certainly are among the best for their respective colors:- (all single flowered unless otherwise mentioned.)

White	**Originator and date**	
Edith Cavell, double flowers	Lemoine	1916
Madame Lemoine, double flowers	“	1890
Reine Elisabeth, strong bloomer	Stepman (Brussels)	1908
Siebold, creamy white, double flowers	Lemoine	1906
Pink to rosy lilac		
Clara Cochet, blush, distinct and dainty	In France	1855
Lilarosa, probably the finest of this group	Spaeth (Germany)	1887
Lucie Baltet, delicate pink, salmon in bud	In France about	1888
Macrostachya, resembles **Lilarosa**	“ “ “	1874
Lavender to purple		
Charles X, reddish	“ “ “	1831?
Cavour, rich purple	Lemoine	1910
Philemon, dark purple, reddish in bud	In France about	1855?
President Lincoln, wedge wood blue; this is the finest of all the blue lilacs	Dunbar	1917
Deep purple-red to reddish		
Aline Mocqueris, dark reddish purple	Dauvesse (France)	1872
Congo, deep purple-red, the finest dark lilac	Lemoine	1896
Ludwig Spaeth, one of the best	Spaeth (Germany)	1883
Diderot, claret-purple	Lemoine	1915

Syringa Henryi. (*S.villosa* × *S.Josikaea*). Probably the best known and most outstanding of the varieties of *S. Henryi* is **Lutece,** which is similar to *S. villosa* but has a larger and looser panicle of pale violet-purple flowers which are not fragrant. A good plant, and one about which Professor Sargent wrote highly in the Bulletin of Popular Information.

Syringa Julianae. The Juliana lilac is a native of western China and is in the group of late blooming lilacs. The outer surfaces of the corolla of the flower and also of the flower stalk itself, are a deep pink, while the inside is considerably lighter in color. This makes a very interesting color combination particularly when the flowers are opening. It has relatively slender ascending and spreading branches, forming a broad rounded mass. *Syringa velutina* is similar to it.

Syringa Komarowii. The Komarof lilac is very similar to *S.reflexa* except that its flower cluster is more cylindrical and compact. The flower buds are bright red and very conspicuous. The open flowers are a deep rose. Though it often blooms profusely while still a small bush, it is not as handsome a plant as *S. reflexa.*

Syringa microphylla. The littleleaf lilac is very free blooming. The flowers are in small clusters, lavender to pink and fragrant, somewhat resembling those of *S. pubescens.* This plant is valued because it blooms both in the spring and again in the fall. *Syringa Meyeri* also does this but not to so great an extent.

Syringa oblata. This broadleaf lilac comes from north China and is valued because it is the first lilac to bloom, usually starting a week before the common lilac. Unfortunately, there are times when the flower buds are injured by severe winters. It is also the only lilac with a good orange to red autumn color in the fall. The leaves are large and usually not disfigured by the mildew in summer. The three varieties are:

affinis - white flowers, commonly cultivated in Chinese gardens.
Giraldii - lilac colored flowers, loose open clusters.
dilatata - lilac-pink flowers, perhaps the best of the three.

Syringa pubescens. Commonly called the hairy lilac, this plant is valued because its flowers are the most fragrant of all the lilacs. A tall-growing shrub, very floriferous, it should have a place in every lilac collection if for nothing more than to give more fragrance to the group. It has small, pale lilac flowers in loose clusters and is said to be hard to root from cuttings.

Syringa reflexa. The nodding lilac is one of the most graceful and distinct of the species. It has long, nodding panicles of red buds which later open into pink flowers. Native in the margins of woods in central China, it was discovered by E. H. Wilson in 1901, and certainly would add interest and beauty to any lilac collection.

Syringa tomentella. The felty lilac has foot-high panicles of pink to rosy-lilac colored flowers which sometimes are almost white. The plants are compact in habit of growth, often growing to fifteen feet in height. One of its interesting characteristics is its smooth pale gray bark with dark lenticels. The flowers are not very fragrant but it is valued because it blooms at about the same time as the late lilac, *S. villosa*. *Syringa Sweginzowii* is very similar.

OTHER SPECIES OF LITTLE ORNAMENTAL VALUE

1. **Syringa emodi** - Himalayan lilac.
2. " **hyacinthiflora** - Hyacinth lilac.
[1]3. " **Josikaea** - Hungarian lilac.
4. " **pinnatifolia** - Pinnate lilac.
5. " **yunnanensis** - Yunnan lilac.

[1] Very similar to *Syringa villosa* in habit of growth and makes a good hedge plant because of its shiny, deep green leaves, but not outstanding for its flower.

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